t4_matrix_7 (TMc6pd4ixYZkk94XNaKc3U2Wynhg5hnzH24)

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Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $np\_\_2 : \iota$ be given. Let $v3\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4\_matrix\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_finseq\_1 : \iota \Rightarrow o$ be given. Let $k3\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $k7\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_relat\_1\ X2)\wedge((v1\_funct\_1\ X2)\wedge(v1\_finseq\_1\ X2)))\Rightarrow((X2 = k10\_finseq\_1\ X0\ X1)\Leftrightarrow((k3\_finseq\_1\ X2 = np\_\_2)\wedge((k1\_funct\_1\ X2\ np\_\_1 = X0)\wedge(k1\_funct\_1\ X2\ np\_\_2 = X1)))) \tag{1}$$

Assume the following.

$$(k2\_finseq\_1\ np\_\_1 = k1\_tarski\ np\_\_1)\wedge(k2\_finseq\_1\ np\_\_2 = k2\_tarski\ np\_\_1\ np\_\_2) \tag{2}$$

Assume the following.

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ (k2\_finseq\_1\ np\_\_2)\ (k2\_finseq\_1\ np\_\_2))\wedge((v3\_funct\_2\ X0\ (k2\_finseq\_1\ np\_\_2)\ (k2\_finseq\_1\ np\_\_2))\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_finseq\_1\ np\_\_2)\ (k2\_finseq\_1\ np\_\_2))))))\Rightarrow((X0 = k10\_finseq\_1\ np\_\_1\ np\_\_2)\vee(X0 = k10\_finseq\_1\ np\_\_2\ np\_\_1)) \tag{3}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_2)\wedge(m2\_subset\_1\ np\_\_2\ k1\_numbers\ k5\_numbers))\wedge((m1\_subset\_1\ np\_\_2\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_2\ k1\_numbers)) \tag{4}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.v1\_finseq\_1\ (k10\_finseq\_1\ X0\ X1) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.k10\_finseq\_1\ X0\ X1 = k7\_finseq\_1\ (k9\_finseq\_1\ X0)\ (k9\_finseq\_1\ X1) \tag{7}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_finseq\_1\ X0)))\Rightarrow(\forall X1.(m2\_subset\_1\ X1\ k1\_numbers\ k5\_numbers)\Rightarrow((X1 = k3\_finseq\_1\ X0)\Leftrightarrow(k2\_finseq\_1\ X1 = k9\_xtuple\_0\ X0))) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2\_tarski\ X0\ X1)\Leftrightarrow(\forall X3.\ (X3 \in X2)\Leftrightarrow((X3 = X0)\vee(X3 = X1))) \tag{9}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ (k2\_finseq\_1\ X0)\ (k2\_finseq\_1\ X0))\wedge((v3\_funct\_2\ X1\ (k2\_finseq\_1\ X0)\ (k2\_finseq\_1\ X0))\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_finseq\_1\ X0)\ (k2\_finseq\_1\ X0)))))))\Rightarrow((v4\_matrix\_2\ X1\ X0)\Leftrightarrow(\exists X2.(v7\_ordinal1\ X2)\wedge(\exists X3.(v7\_ordinal1\ X3)\wedge((X2 \in k9\_xtuple\_0\ X1)\wedge((X3 \in k9\_xtuple\_0\ X1)\wedge((X2 \neq X3)\wedge((k1\_funct\_1\ X1\ X2 = X3)\wedge((k1\_funct\_1\ X1\ X3 = X2)\wedge(\forall X4.(v7\_ordinal1\ X4)\Rightarrow((X4 \in k9\_xtuple\_0\ X1)\Rightarrow((X4 = X2)\vee((X4 = X3)\vee(k1\_funct\_1\ X1\ X4 = X4))))))))))))) \tag{10}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v7\_ordinal1\ X0) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(v1\_relat\_1\ X2) \tag{12}$$

Theorem 1

$$\forall X0.((v1\_funct\_1\ X0)\wedge((v1\_funct\_2\ X0\ (k2\_finseq\_1\ np\_\_2)\ (k2\_finseq\_1\ np\_\_2))\wedge((v3\_funct\_2\ X0\ (k2\_finseq\_1\ np\_\_2)\ (k2\_finseq\_1\ np\_\_2))\wedge(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_finseq\_1\ np\_\_2)\ (k2\_finseq\_1\ np\_\_2)))))))\Rightarrow((v4\_matrix\_2\ X0\ np\_\_2)\Rightarrow(X0 = k10\_finseq\_1\ np\_\_2\ np\_\_1))$$